Common point of view of the Belgian representatives to IAEA’s Safety Standards Committees on the possible revision of IAEA’s Safety Fundamentals (SF-1) as an implication of the UNSCEAR 2012 report on Attributing Health Effects to Ionising Radiation and Inferring Risks

Belgium has welcomed the UNSCEAR 2012 report as a very useful document. This publication provides an excellent synthesis on the limitations and uncertainties of scientific studies in the range of low and very low doses and low dose rates. It has however not provided any new insight on possible radiation-induced health effects that would necessitate a fundamental revision of the Safety Standards: what is mentioned was already known by the radiological protection professionals and experts worldwide. But the strength of this publication lies in it putting things together and providing additional clarification by distinguishing between different exposure situations and explicitly discussing uncertainties.

Belgium is therefore not convinced that the publication of this UNSCEAR report calls for a revision of IAEA Safety Fundamentals which are written in broad and general terms. While admitting that SF-1 could be improved by introducing the distinctions made very clear by the UNSCEAR report, by adapting the terminology to the concepts introduced by ICRP’s publication 103, by several editorial changes, etc., this same objective could also be reached by other means, such as by the publication of a complementary document providing additional information on how to interpret and apply SF-1.

Belgium would prefer to keep SF-1 without modification for the time being, as all the major protection concepts provided by this document are still fully valid.

SF-1 has been formally endorsed by several international and some regional organisations and should be seen as translating a very broad and worldwide consensus. Any revision would need to solicit the same amount and quality of support, which is not guaranteed in advance. Currently, we judge the risk of losing this support as more important than the potential benefits of a revision of SF-1.

Furthermore, any revision of SF-1 will create an avalanche effect, calling for review and possible revision of the many documents that are, from a hierarchical perspective, in a lower position. The Safety Requirements that have recently been published in the first place, but many others, also those still in the publication process, might be affected. These efforts would be disproportionately large as compared to the relatively minor benefits of a revision of SF-1.

Finally, Belgium is not willing to endorse any revision that would constitute a weakening of the fundamental principles of protection described by the current SF-1. Taking into consideration the inherent limitations and uncertainties associated with scientific studies in general, and with epidemiological surveys in particular, the absence of statistically significant results should not lead to a lowering of our vigilance or to an abandon of a prudent approach (precautionary principle). Without, however, going to the other extreme.